

WEDNESDAY, 30TH NOVEMBER, 1881.

The President J. C. Cox, M.D., F.L.S., &c., in the Chair.

Mr. Augustus Gross and Mr. Baker were introduced as visitors.

MEMBERS ELECTED.

Mr. E. Combes, C.M.G., and Mr. W. A. Brodribb, M.L.A.

DONATIONS.

Southern Science Record for October and November, 1881.

Journal of the Royal Microscopical Society for August, 1881.

Annual Report of the School of Mines, Ballarat.

Annual Report of South Australian Institute.

Reuter's "Ad cognitionem redivivam mundi antiqui,"
Helsingfors.

PAPERS READ.

TWO NEW SPECIES OF PLANTS FROM NEW SOUTH WALES

BY BARON FERD. VON MUELLER, K.C.M.G., PH. & M.D., F.R.S.

JACKSONIA STACKHOUSII.

Dwarf, procumbent or ascendant, not pungent; branchlets very thin, finely or scantily silky, gradually glabrescent, slightly furrowed; flowers dispersed or in pairs along the upper part of the branchlets; calyces silvery-silky, little longer than broad, very angular from the prominent edges of the lobes; upper lip of the calyx divided only to one-third of its length into two deltoid teeth; lower lip slit to the base into three ovate-lanceolar segments; tube suddenly narrow, three times shorter than the segments; petals equally yellow, all of about the same length; ovary sessile; pod shorter than the calyx, almost ovate, compressed silky outside, nearly smooth inside; seeds 1 or 2, grey, minutely blackish-dotted.

This hitherto undescribed *Jacksonia* is in habit and ramification similar to *J. angulata*; but the calyces of the latter are more distinctly stalked and have their five segments equally long, linear-lanceolar, more pointed and slightly downy inside, the corolla is more evidently surpassed in length by the calyx, the lower petals being the shortest and dark purple. The ripe fruit may also prove to be different. In the characteristic of the upper lip of the calyx not being deeply divided *J. Stackhousii* approaches, among the 33 congeners now known, only *J. odontoclada* and *J. ramosissima*.

Several instances are known of very remarkable repetitions of West-Australian forms of plants occurring in the most eastern regions of Australia, though no similar species have been discovered in the wide interjacent spaces, the imitative species being however not identical. Even quite recently the genera *Boronia*, *Agonis*, *Brachyloma* and now also *Myoporum*, have furnished such examples. To these instances another has now been added by Captain Stackhouse, R.N., who sends from near the entrance of the Clarence River the above characterised *Jacksonia*, which he rightly recognized as nearest to the West-Australian *J. angulata*. The same plant had been collected some years ago by Mr. C. Moore and Mr. W. Carron on sand ridges near Cape Byron, and lately the Rev. B. Scortechini has found it also within Queensland boundaries.

MYOPORUM BATEÆ (Sect. *Disoon*.)

Shrubby, erect, glabrous; leaves scattered, elongated, narrow-lanceolar, of thin chartaceous consistence, minutely serrulated, decurrent into a very short stalk; flowers from 4 to 10 in each cluster, somewhat or considerably longer than their thin stalklets; segments of the calyx narrow-lanceolar, nearly three times shorter than the corolla; the lobes of the latter semiovate-orbicular, glabrous, about as long as the tube; throat of the corolla very scantily short-downy; filaments about as long as the corolla, but

much longer than the anthers, smooth; ovary strongly compressed, constantly two-celled, with one ovule in each cell; fruit very small, scarcely half exerted, obcordate or truncate-roundish, rather prominently two-edged, two-seeded; pericarp very thin, not succulent.

On rivulets near Mount Dromedary; Miss Mary Bate.

A shrub, attaining a height of about 5 feet, branchlets smooth, slightly viscid. Leaves flat, when well developed 3 to 4 inches long, $\frac{1}{3}$ to $\frac{1}{2}$ inch broad, copiously and almost transparently dotted; gradually attenuated into the narrow acute summit. Stalklets of flowers $1\frac{1}{2}$ to 3 lines long. Segments of calyx hardly exceeding the length of 1 line. Corolla outside more or less rosy-purplish; its lobes measuring scarcely $\frac{1}{3}$ inch, the tube about as long. Stamens four. Style setaceous, glabrous, rather above 1 line long. Fruit measuring hardly more than $\frac{1}{3}$ inch, somewhat turgid, very compressed at the margin. Seeds oblong-ellipsoid, pendent from the roof of the cell.

This handsome and evidently rare species is in foliage very much like the genuine West-Australian *M. serratum*, but in fruit very different, and comes thus far near *M. floribundum*; indeed it belongs to the series, which on carpologic characteristics was generically separated by Alphonse de Candolle as *Disoon*, of which subgenus only *M. platycarpum* and *M. floribundum* are known from Eastern Australia, both very different in foliage from the new congener now recorded. Irrespective of the difference of the very narrow leaves, *M. floribundum* has rather acute lobes of the corolla, the tube of which surpasses considerably the length of the calyx, and the fruit is nearly twice as long as broad.

M. platycarpum becomes a small tree, and is restricted to the desert regions of South-Eastern Australia; its leaves are smaller and more rigid than those of *M. Bateæ*, their serratures are more distant and they occur only towards the upper end of the leaves, the calyx has the shortness of that of *M. floribundum*, the corolla

is more bearded, the fruit flatter and longer, thus stretching much beyond the calyx, besides being attenuated into an acute apex and marked upwards along the middle of each side by a prominent line. The true *M. serratum* differs from Miss Bate's plant in often shorter leaves, rather longer pedicels, longer and differently shaped segments of the calyx, more bearded corollas with longer lobes, an often downy style and especially in 3-or 4-celled and all round turgid fruits with a thicker endocarp. In reality *M. serratum* is very closely allied to *M. oppositifolium*, but not to the arborescent *M. insulare*, with which Bentham combined it, and which as well as *M. tenuifolium* occurs also near Mount Dromedary, but in subsaline litoral regions.

The botanical collections of the lady who discovered this *Myoporum* contain furthermore several plants especially worthy of record as not having been found formerly so far south (Lat. 36° 20'); these, with others obtained additionally from Mr. Reader,—since notes on his plants were published in the last year's volume of the Linnean Society of New South Wales, pp. 287-218—are comprised in the following list :

- Clematis glycinoides*, Candolle.
- Hibbertia volubilis*, Andrews.
- Doryphora Sassafras*, Endlicher.
- **Cryptocarya glaucescens*, Brown.
- Vitis Baudiniana*, F.v.M.
- **Synoum glandulosum*, A. de Jussieu.
- Phyllanthus Gastroemii*, J. Mueller.
- Muehlenbeckia gracillima*, Meissner.
- Alphitonia excelsa*, Reissek.
- Acacia falcata*, Willdenow.
- Eucalyptus robusta*, Smith.
- **Apium leptophyllum*, F.v.M.
- Xanthosia Atkinsoniæ*, F.v.M.
- Aster dentatus*, Andrews.
- Crepis japonica*, Bentham.

- Solanum violaceum*, Brown.
 **Myoporum tenuifolium*, G. Forster.
 **Myoporum Bateæ*, F.v.M.
Ipomœa palmata, Forskael.
Lyonsia reticulata, F.v.M.
Cymbidium suave, Brown.
Sarcochilus falcatus, Brown.
 **Sarcochilus olivaceus*, Lindley.
 **Sarcochilus tridentatus*, G. Reichenbach.
Rhynchospora diandra, Sprengel.
Lindsaya microphylla, Swartz.
Lysimachia japonica, Thunb.
Dendrobium æmulum, R. Br.
Bulbophyllum exiguum, Müell.
Viscum articulatum, Burman.

Of these *Eucalyptus robusta*, has been noted still further south (at Merimbula) and *Rhynchospora diandra* as extending to the Genoa.

Further we have now become aware, that the following plants, mostly of Tasmanian type, advance into New South Wales, at least to the vicinity of Mount Dromedary :

- Correa Lawrenciana*, Hooker.
Muehlenbeckia appressa, Meissner.
 **Australina pusilla*, Gaudichaud.
Epacris impressa, Labillardière.
Mentha gracilis, Brown.
Casuarina quadrivalvis, Labillardière.
Hierochloe rariflora, J. Hooker.

The plants gathered solely by Miss Bate, are marked with an asterisk.

What renders these data particularly interesting is the fact of their demonstrating how very far southward some tropical forms of plants extend through the mild litoral tracts of East-Australia,

as shown for instance by the occurrence of several epiphytal Orchids; whereas even in equal isothermal zones none are represented by equivalent exponents in the whole flora of Europe anywhere.

ON THE EXISTENCE AFTER PARTURITION OF A DIRECT COMMUNICATION BETWEEN THE MEDIAN VAGINAL CUL-DE-SAC SO-CALLED, AND THE UROGENITAL CANAL, IN CERTAIN SPECIES OF KANGAROOS.

BY J. J. FLETCHER, M.A. (SYD.), B.Sc. (LOND.).

I. Introductory.

“In the Marsupialia the female organs consist of two ovaries, two oviducts or fallopian tubes, two uteri, two vaginae, an urogenital canal, and a clitoris” (Owen). While the presence of two vaginae is constant throughout the group, there is considerable variation in the relation of the two vaginae to one another. Thus, again quoting from Vol. III. of Prof. Owen’s Comparative Anatomy, “in *Didelphis dorsigera*, each vaginal tube after embracing the os tinae is immediately continued upwards and outwards, then bends downward and inward, and after a second bend upward, descends by the side of the opposite tube to terminate parallel with the urethra, in the common or urogenital passage. In *Petaurus* the vaginae * * * descend close together half-way toward the urogenital passage, and there terminate blindly without intercommunication. From the upper part of these culs-de-sac the vaginae are continued upward and outward, forming a curve, like the handles of a vase, then descend, converge, and terminate close together as in the preceding example. In *Dasyurus vivverinus*, and *Didelphis virginiana* the mesial culs-de-sac of the vaginae descend to the urogenital passage, and are connected to it, but do not communicate with it or with one another. In the